

REMARKS

This application has been reviewed in light of the Office Action dated July 1, 2004. Claims 1, 2, 4-24, and 27-37 are presented for examination. Claim 3 has been canceled, without prejudice or disclaimer of subject matter, and its recitation incorporated into base Claim 1. Claims 25 and 26 have been canceled, without prejudice or disclaimer of subject matter, and their recitations incorporated into new Claims 36 and 37, respectively. Claims 1, 2, 4-14, 16-24, 29, and 33-35 have been amended to define more clearly what Applicants regard as their invention. Claims 36 and 37 have been added to provide Applicants with a more complete scope of protection. Claims 1, 10, 13, 16-22, 33, and 35-37 are in independent form. Favorable reconsideration is requested.

Applicants note with appreciation the allowance of Claim 32 and the indication that Claims 25 and 26 would be allowable if rewritten so as not to depend from a rejected claim, and with no change in scope. New Claims 36 and 37 include the features of base Claim 22 and Claims 25 and 26, respectively, and are believed to be in condition for allowance.

The Office Action at pages 2 and 3 objected to the drawings on the grounds noted.

Applicants have carefully reviewed and amended Fig. 10 and the specification, as necessary, to overcome the noted objections. In particular, the specification at page 12, line 17, has been amended to include reference to block B4 in Figure 3; at page 24, line 26 to include reference to step S13 in Figure 8; at page 43, line 8, to include reference to steps S76 and S77 in Figure 16; and at page 44, line 9, to reference to steps S81-S85 in Figure 17. Further, Figure 10 has been amended to delete reference

AMENDMENTS TO THE DRAWINGS

Attached herewith is one (1) corrected drawing sheet to be substituted for the corresponding drawing sheet presently on file in the above-identified application. The attached replacement drawing sheet includes the changes to Figure 10. The replacement drawing sheet incorporates the changes required in reply to the Office Action dated July 1, 2004, and is not believed to add new matter to the original disclosure. More specifically, the changes are as follows:

In Fig. 10, reference designators T11, T12, T32 and T33 have been deleted, and reference designator P1 associated with the 3-Line Process has been amended to read -- P3--.

Attachments: Replacement Sheets

Annotated Sheets Showing Changes

indicators T11, T12, T32, and T33. Also, Figure 10 has been amended to replace reference designator "P1" associated with the 3-Line Process with --P3--. It is believed that the objections to figures has been remedied, and their withdrawal are therefore respectfully requested.

The Office Action objected to the specification at page 22, line 11, on the ground noted at page 3.

Applicants have carefully reviewed and amended the specification to incorporate the Examiner's suggestion. Accordingly, Applicants submit that the objection has been obviated, and respectfully request its withdrawal.

The Office Action also objected to the title as not being descriptive. Applicants have amended the title according to the Examiner's suggestion. Accordingly, Applicants submit that the objection has been obviated, and respectfully request its withdrawal.

Claims 1, 2, 5, 11, 16, 19, 22, and 29 were rejected under 35 U.S.C. § 112, second paragraph, as indefinite.

The claims have been carefully reviewed and amended as deemed necessary to ensure that they conform fully to the requirements of Section 112, second paragraph, with special attention to the points raised in paragraph 8 of the Office Action. Specifically, the term "tint" has been amended to read --chrominance--. It is believed that the rejection under Section 112, second paragraph, has been obviated, and its withdrawal is therefore respectfully requested.

Claim 6 was rejected under 35 U.S.C. § 112, second paragraph, as indefinite.

Applicants respectfully direct the Examiner to page 25, line 25, to page 26, line 5, for support for the term “highlight part”. Accordingly, Applicants submit that the term “highlight part” is defined by the specification, and respectfully request the withdrawal of the Section 112, second paragraph, rejection.

Claim 8 was rejected under 35 U.S.C. § 112, second paragraph, as indefinite.

Applicants respectfully direct the Examiner to page 13, line 9, to page 15, line 14, for support for the feature of Claim 8, and in particular page 15, lines 1-14. Accordingly, Applicants submit that Claim 8 is fully supported by the specification, and respectfully request the withdrawal of the Section 112, second paragraph, rejection.

Claims 13 and 16 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. Applicants have amended Claims 13, 18, and 21, to delete the term “scene change part”. Applicants note, however, original Claim 16 did not recite the term “scene change part”.

Claims 1, 2, 7, 16, and 19 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,742,410 (*Suzuki*); Claims 4, 8, 9, 13, 14, 18, 21-24, 27-31, and 33-35 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. *Suzuki*; Claims 10, 17, and 20 were rejected under Section 103(a) as being unpatentable over U.S. Patent No. 5,757,375 (*Kawase*); and Claims 11 and 12 were rejected under Section 103(a) as being unpatentable over *Kawase* in view of *Suzuki*.

As shown above, Applicants have amended independent Claims 1, 10, 13, 16-22, 33, and 35 in terms that more clearly define what they regard as their invention. Applicants submit that these amended independent claims, together with the remaining

claims dependent thereon, are patentably distinct from the cited prior art for at least the following reasons.

Suzuki relates to a color image processing apparatus which can perform image reproduction by correcting image deviations that may occur at the time of image reading in a color image input device used in a digital color copier. In the *Suzuki* system, an edge quantity is determined from a lightness signal of image signals on a uniform perception color space. A chroma is determined from chroma signals of uniform perception color image signals. A black/color edge degree is calculated from the edge quantity and the determined chroma. The chroma signals are converted for color deviation correction in accordance with the black/color edge degree.

Kawase relates to three-dimensional graphics systems that employ both super-sampling and double-buffering techniques.

The aspect of the present invention set forth in Claim 1 is an image process method. The method includes inputting color image data composed of a signal representing brightness and a signal representing chrominance. The method performs a smoothing process on the signal representing chrominance, while not changing the signal representing brightness, and judging whether or not the color image data including the signal representing brightness represents an edge part on the basis of the signal representing brightness. The smoothing process step is not performed if it is judged in the first judgment step that the color image data represents the edge part.

Among other important features of Claim 1 is that the smoothing process step is not performed if it is judged in the first judgment step that the color image data represents the edge part.

As indicated in the Office Action at page 7, lines 5-11, and Figure 3 of *Suzuki*, the a*b* signals are smoothed in the *Suzuki* system. However, it is apparent from column 12, lines 21-25, of *Suzuki* that the chroma of the black character portion (i.e., the edge portion) is also smoothed. Accordingly, Applicants submit that nothing has been found in *Suzuki* that would teach or suggest that the smoothing process step is not performed if it is judged in the first judgment step that the color image data represents the edge part, as recited in Claim 1.

For at least this reason, Applicants submit that Claim 1 is clearly patentable over *Suzuki*.

Independent Claims 16 and 19 are apparatus and computer-readable recording medium claims respectively corresponding to method Claim 1, and are believed to be patentable for at least the same reasons as discussed above in connection with Claim 1.

The aspect of the present invention set forth in Claim 10 is an image process method. The method includes inputting a drawing instruction including at least a graphic image data part and a text image data part. The method also includes detecting the graphic image data part on the basis of the drawing instruction inputted in the input step, and performing a color noise reduction process on the graphic image data part.

Among other important features of Claim 10 are inputting a drawing instruction including at least a graphic image data part and a text image data part, and detecting the graphic image data part on the basis of the drawing instruction.

Kawase at column 4, lines 2-4, discusses that rasterized color information is filtered (ordinary, averaged). However, nothing has been found in *Kawase* that would

teach or suggest inputting a drawing instruction including at least a graphic image data part and a text image data part, and detecting the graphic image data part on the basis of the drawing instruction, as recited in Claim 10. Accordingly, *Kawase* is not able to realize the feature that the color noise can be reduced with respect to the graphic image data part of the drawing instruction which includes at least the graphic image data part and the text image data part.

For at least the above reason, Applicants submit that Claim 10 is clearly patentable over *Kawase*.

Independent Claims 17 and 20 are apparatus and computer-readable recording medium claims respectively corresponding to method Claim 10, and are believed to be patentable for at least the same reasons as discussed above in connection with Claim 10.

The aspect of the present invention set forth in Claim 13 is an image process method which performs a filtering process by a filter having a size and shape to a color image, composed of color image data and peripheral color image data, according to the color image data. The method includes detecting a non-continuous point in the color image by using the color image data and peripheral color image data; and changing a filter of a different size and shape in accordance with the detected result in the detection step. Note that page 27, lines 20 and 21, of the specification provide support for the feature of “a non-continuous point in the color image”, and Figures 9A-9C, and the corresponding disclosure in the specification, provide support for the filter change step of Claim 13.

Among other important features of Claim 13 is changing a filter of a different size and shape in accordance with the detected result in the detection step.

Suzuki discusses that a filter coefficient is changed. However, nothing has been found in *Suzuki* that would teach or suggest changing a filter of a different size and shape in accordance with the detected result in the detection step, as recited in Claim 13. Accordingly, the *Suzuki* system is not able to achieve the effect, for example, of in the case where image data of a scenery photograph or the like is processed, the smoothing is performed with the brown of the ground and the blue of the sky which are uncontinuous (not continuous) in the original image data, as discussed at page 27, lines 17-21, of the specification.

For at least the above reason, Applicants submit that Claim 13 is clearly patentable over *Suzuki*.

Independent Claims 18 and 21 are apparatus and computer-readable recording medium claims respectively corresponding to method Claim 13, and are believed to be patentable for at least the same reasons as discussed above in connection with Claim 13.

The aspect of the present invention set forth in Claim 22 is an image process method. The method includes calculating a feature quantity of an input image composed of input image data by using a histogram concerning brightness, and performing a color noise reduction process on the input image data. The method also includes performing a correction process on the input image subjected to the color noise reduction process in the color noise reduction process step, on the basis of the calculated feature quantity calculated in the calculation step.

Among other important features of Claim 22 is calculating a feature quantity of an input image composed of input image data by using a histogram concerning brightness.

Suzuki discusses that edge detection is performed on the L* signal (column 11, lines 44 and 45). However, nothing has been found that would teach or suggest calculating a feature quantity of an input image composed of input image data by using a histogram concerning brightness, as recited in Claim 22. Accordingly, *Suzuki* is not able to achieve effect, that with respect to the input image from which the color noise has been eliminated, a correction process can be performed based on the feature quantity of the input image by using the histogram concerned with brightness.

For at least the above reason, Applicants submit that Claim 22 is clearly patentable over *Suzuki*.

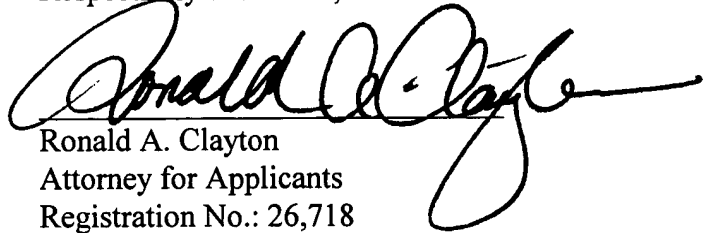
Independent Claims 33 and 35 are apparatus and recording medium claims respectively corresponding to method Claim 22, and are believed to be patentable for at least the same reasons as discussed above in connection with Claim 22.

The other claims in this application are each dependent from one or another of the independent claims discussed above and are therefore believed patentable for the same reasons. Since each dependent claim is also deemed to define an additional aspect of the invention, however, the individual consideration or reconsideration, as the case may be, of the patentability of each on its own merits is respectfully requested.

In view of the foregoing amendments and remarks, Applicants respectfully request favorable reconsideration and early passage to issue of the present application.

Applicants' (Applicant's) undersigned attorney may be reached in our New York office by telephone at (212) 218-2100. All correspondence should continue to be directed to our below listed address.

Respectfully submitted,



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ANNOTATED SHEET SHOWING CHANGES

FIG. 9A

2/19	2/19	2/19	2/19	2/19
2/19	2/19	2/19	2/19	2/19
2/19	2/19	3/19	1/19	1/19

FIG. 9B

2/18	2/18	2/18	2/18	2/18
2/18	2/18	2/18	1/18	1/18

FIG. 9C

2/5	2/5	2/5	1/5	1/5
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FIG. 10

